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ABSTRACT

As part of a classroom management module, secondary level student teachers at the National Institute of Education, Singapore, used the Questionnaire on Teacher-Student Interaction to evaluate themselves while they were student-teaching. The questionnaire assessed their interpersonal behaviors and their interactions with classroom students. Behaviors measured included leadership, helpfulness, friendliness, understanding, allowing students responsibility/freedom, uncertainty, dissatisfaction, admonishment, and strictness. Data analysis indicated that the respondents believed they were strict with their students and not very willing to provide students with freedom and responsibility. They wanted to have tight control of their students' learning. The respondents gave themselves high ratings on leadership, friendliness, and understanding and low ratings on uncertainty, dissatisfaction, and admonishing behaviors. Gender influenced their self-evaluations. Male respondents perceived that they displayed more leadership qualities in the classroom and more helping and friendly behavior toward their students than did females, while female respondents perceived that they were more uncertain and admonishing than their male counterparts. (Contains 13 references.) (SM)

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Self-evaluation of interpersonal behavior and classroom interaction by teacher trainees

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Abstract

Self-evaluation is one of the desirable characteristics particularly relevant to the teaching profession. Though often times teachers engage in a systematic reflection on a lesson delivered, self-evaluation of interpersonal behavior and/or their interaction with students as part of the classroom management strategy is rarely done.

As part of the classroom management module, trainee teachers at the National Institute of Education, Singapore used the Questionnaire on Teacher-Student Interaction (QTI) to evaluate themselves while they were on practice teaching. The questionnaire is designed to assess the interpersonal behavior of the teachers and the interaction with the students in the classroom. This paper will report the findings from the study that is the perceived strengths and shortcomings of the trainee teachers and discusses how the information may be utilized to assist in self-improvement of trainee teachers in classroom management as well as their implications for teacher education.

Introduction

Different teachers advocate different levels of control over their students. Some teachers feel that students need a strict, disciplined environment to learn, whilst others feel that a greater degree of freedom should be given to develop student responsibility towards their learning. To promote student responsibility some teachers feel that a pleasant classroom atmosphere has to be created where students can take risk and be creative. In order to make trainee teachers aware of the importance of interpersonal behaviours in the classroom with their students the trainee teachers have to be initiated to reflect on their interpersonal dispositions and change their beliefs and behaviours if found not appropriate.

This type of self-evaluation is one of the desirable characteristics particularly relevant to the teaching profession. Arends (2001:18) is of the view that "effective teaching requires careful and reflective thought about what a teacher is doing and the effect of his or her action on students' social and academic learning". Though often times teachers engage in a systematic reflection on a lesson delivered, self-evaluation of interpersonal behavior and/or their interaction with students as part of the classroom management strategy is rarely done. Many teachers fail to realise that interpersonal relationship with students is as important as delivering a well planned lesson if not more. As Wong and Wong (1998:7) points out, "You were hired not so much to teach third grade history or physical education as to influence lives. Touch the life of a student, and you will have a student who will learn history, physical education and even science and math, clean the erasers, staple all the papers, and turn cartwheels to please you". Wubbels (1993) in a study found students' perception of interpersonal teacher behaviour to account for 70% of the variability in the student achievement and 55% for attitude outcomes. This leads us to believe that interpersonal teacher behaviour is an important aspect of learning behaviour and learning outcome.

As part of the classroom management module, in the post-graduate teacher education programme at the National Institute of Education, Singapore trainee teachers used the Questionnaire on Teacher-Student Interaction (QTI) to evaluate themselves while they were on practice teaching. The questionnaire is designed to assess the interpersonal behavior of the teachers and the interaction with the students in the classroom.

The Origin of the QTI

Historically, classroom environment research grew out of the studies of Moos and Walberg in the late 1960s and early 1970s. Since then, a number of instruments have been developed with which it is possible to conduct research focusing on the classroom environment. This research has mainly been concerned with self-reporting of the perceptions of psychosocial characteristics of trainee teachers.

In a clinical and psychology research setting, Leary (1957) and his co-workers analysed hundreds of patient-therapist dialogues and group discussions in clinical and other situations. These conversations and discourse were divided into short statements representing different kinds of interpersonal behaviour. The statements were coded and arranged into sixteen categories and then later reduced into eight.

By adapting the Leary Model, Wubbels, Creton, Levy, and Hooymayers (1993) developed the Model for Interpersonal Teacher Behaviour and subsequently designed the Questionnaire on Teacher Interaction (QTI) in the early 1980s. The original version of the QTI was in Dutch and it had 77 questions. An American version of the QTI was developed which had 64 questions. The Australian version of the QTI contains 48 questions that are answered using a five-point

response scale (Wubbels, 1993).

Teacher behaviour is mapped on a Proximity dimension [Cooperation or Opposition] and on an Influence dimension [Dominance or Submission] to form four quadrants. These are then divided into a total of eight sectors, each describing different behaviour characteristics that a teacher may exhibit. (See Figure 1)

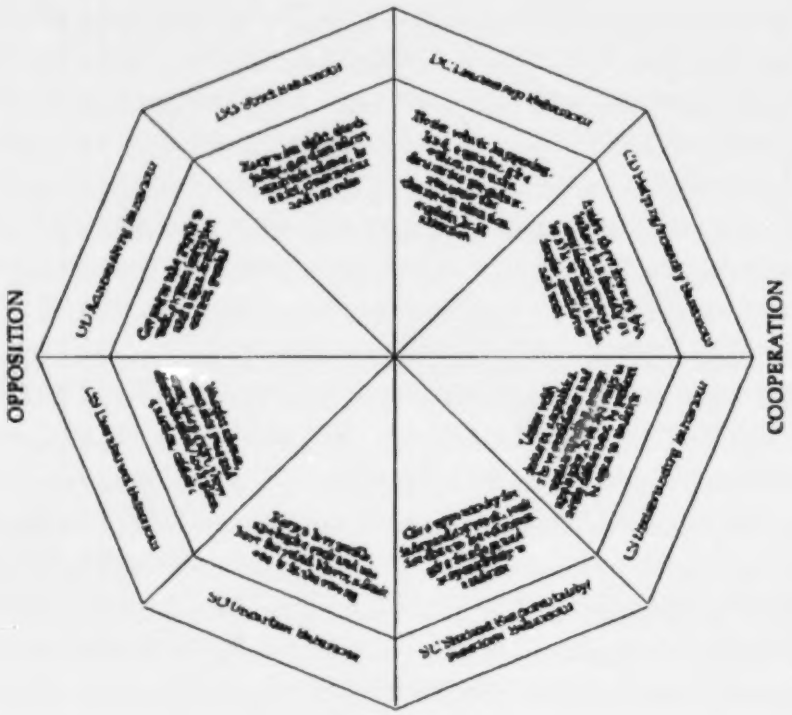

Figure 1: The model of Interpersonal Teacher Behaviour (Wubbles, 1993, p.4.)

The response provision in the QTI is a five-point Likert-type scale, which is scored from 0 (Never) to 4 (Always) on the questionnaire itself. This method of giving a response to each question facilitates a faster completion of the questionnaire. In this way the QTI can be answered easily by the teacher as a self–evaluation exercise or be administered easily and quickly in the class by the teacher to get students perception of teacher behaviour. The items are arranged into eight scales corresponding to the eight interrelated sections of the model for interpersonal teacher behaviour. Table 1 provides the name of each scale, its description, and a sample item as it appears on the questionnaire.

Table 1

Description and Examples Items for each Scale in the QTI

Scale	Description	Item
Leadership [DC] - leads, organises, gives instructions,	Extent to which teacher provides leadership to class and holds student attention.	This teacher explains things clearly.

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sets tasks, holds attention, structures sessions		
Helping/Friendly [CD] - assists, shows, considerate manner, inspires trust, will share jokes	Extent to which teacher is friendly and helpful towards students.	This teacher is friendly.
Understanding [CS] – Listens with interest, accepts apologies, be patient, be open to students	Extent to which teacher shows understanding/concern/care to students.	If we don't agree with this teacher, we can talk about it.
Student Responsibility/ Freedom [SC] – gives freedom to students, negotiates	Extent to which students are given opportunities to assume responsibilities for their own activities.	We can influence this teacher.
Uncertain [SO] – low profile, apologises for errors, waits and sees what to do, unsure	Extent to which teacher exhibits her/his uncertainty.	It is easy to make a fool out of this teacher.
Dissatisfied [OS] – looks glum, shows dissatisfaction, criticises, questions	Extent to which teacher shows unhappiness/dissatisfaction with student.	This teacher thinks that we don't know anything.
Admonishing [OD] – gets angry, expresses irritation, forbids, punishes, punitive	Extent to which teacher shows anger/temper/impatient in class.	The teacher is impatient.
Strict [DO] – keeps tight control, strict, maintains silence, exact norms, inflexible	Extent to which teacher is strict with and demanding of students.	We are afraid of this teacher.

Past classroom environment studies using QTI

Since its development, the Questionnaire on Teacher Student Interaction (QTI) has been extensively used and accepted as a reliable research instrument. Wubbels and Levy (1993) reported the acceptable internal consistency reliabilities for the QTI as ranging from 0.76 to 0.84 for student responses.

Fisher, Rickards, Goh, and Wong (1997) compared the results of their finding after using the instrument in Australia and Singapore. The study involved 720 students in Singapore produced a reliability quotient ranging from 0.59 to 0.98 in that country, and with a sample of 705 students in Australia resulted in a reliability quotient ranges from 0.60 to 0.96. In Brunei, the first attempt to use the QTI was reported by Hunus (1998). This study involved 644 secondary students and produced Cronbach alpha reliability readings ranging from 0.58 to 0.80 for the 8 scales.

When teachers were respondents the internal consistency reliabilities ranged from 0.74 to 0.84 for the United States sample, 0.61 to 0.83 for the Netherlands sample and 0.60 to 0.82 for the Australian sample for the eight QTI scales (Wubbles, 1993). These results indicate that the scales are reliable and are consistent across different context.

Associations between the QTI scales and attitudinal outcomes were also reported by Kim, Fisher and Fraser (2000) in their study in Korea and by Wubbles (1993) in the Netherlands study. It was found that the QTI scales of Leadership, Helping/Friendly and Understanding were positively correlated with students' attitudinal outcomes. The Uncertain, Dissatisfied, Admonishing, and Strict scales were negatively correlated with students' attitudinal outcomes.

Wubbles (1993) also reports an association between QTI scales and achievement outcomes. Three Dominance scales – Strict behaviour, Leadership and Friendly behaviour – are positively related to student achievement, whereas three Submission scales – Student responsible behaviour, Uncertain behaviour and Dissatisfied behaviour – are negatively related to achievement.

The QTI also has been used to investigate gender differences in students' perceptions of interpersonal teacher behaviour. At primary school level in Singapore girls generally viewed their classroom environments more favourably than boys (Goh & Fraser, 1998). When a study was made in chemistry classrooms in Brunei involving 223 boys and 317 girls from coeducational schools, Hunus, Fraser, and Rickards (1997) observed that four out of eight QTI scales detected significant gender differences ($p<0.01$). It was found that girls perceived their chemistry teachers as good leaders, helpful and friendly. At the same time, the boys found their chemistry teachers were more uncertain and gave them more responsibility and freedom than girls.

The Present Study

We believe that teacher's personal qualities that allow for the development of authentic human relationship with their students and create a democratic and just classroom are important attributes for effective teaching. So, in our teacher education programme the trainee teachers were given an opportunity to examine their interpersonal dispositions through self-administration of QTI during the practicum. The purpose of the exercise was two fold: to make the student teachers aware of their interpersonal behaviour during interactions with their students and to assist them in assessing and reflecting on their classroom management approach so that they can make adjustment to their interpersonal behaviour if found wanting.

For this study the responses of trainee teachers to QTI were analysed to find out the dispositions of the trainee teachers on the eight dimensions of interpersonal teacher behaviour and their relationship to gender and academic major.

Data collection

The academic year 2000/2001 saw the enrollment of 670 postgraduate students for the secondary postgraduate teacher education programme (PGDE – secondary). In January 2001 all the students enrolled for the core module "Teaching and Classroom Management". As part of the assessment of this module student were given a written assignment as follows:

Assignment Topic

Research on teacher effectiveness and changing demands in education emphasise the need for teachers to be adept in teaching and managing the classroom.

In this assignment, you are required to evaluate your preference in interpersonal teaching behaviour and discuss the classroom management system that you might use in a class that you would be teaching in one of your Curriculum Studies' subjects during the Practicum, with the help of the following guidelines:

1. *Using the Questionnaire for Teacher Interaction (QTI), draw a profile of the interpersonal behaviour that you perceive you would demonstrate with your class. What does this tell you of your beliefs, preferences, etc.? What would you need to do to improve the teacher-student relationship as reflected in your behaviour profile?*

2. Taking into account your beliefs and personality as discerned by the questionnaire which classroom management approach or eclectic approach would you consider appropriate for you? Translate this approach into a classroom management system that you might implement in your classroom.

For this assignment the Australian version of QTI consisting of 48 items was used. The QTI focuses on eight dimensions of teacher behaviour listed in Table 1. The QTI has six items per dimension of teacher behaviour. Table 2 lists the dimensions of teacher behaviour and the related items.

The exercise was carried out in non-threatening manner and it was hoped that the trainee teachers did not feel any pressure to give what might be considered as "acceptable" or faked responses.

Scoring

All items are scored 0 for "Never" and 4 for "Always". The scores for each item within the same dimension are added to obtain a scale score. For example, the sum of scores for items 1, 5, 9, 13, 17, and 21 represents the scale score of 'Leadership' behaviour. The higher the scale score, the more a teacher would exhibit leadership behaviour relating to that scale. The maximum score is 24 and the minimum score is 0.

Table 2

Dimensions of teacher behaviour and related QTI items

	Teacher behaviour Dimension	*Items*
1.	Leadership	1, 5, 9, 13, 17, 21
2.	Helping/Friendly	25, 29, 33, 37, 41, 45
3.	Understanding	2, 6, 10, 14, 18, 22
4.	Student Responsibility/Freedom	26, 30, 34, 38, 42, 46
5.	Uncertain	3, 7, 11, 15, 19, 23
6.	Dissatisfied	27, 31, 35, 39, 43, 47
7.	Admonishing	4, 8, 12, 16, 20, 24
8.	Strict	28, 32, 36, 40, 44, 48

Sample

A random sample of 200 responses was collected for analysis out of the total 670 responses. In terms of gender and major academic subjects the sample consisted of 110 females (55%) and 90 males (45%), 77 Arts majors (38.5%), 65 Science majors (32.5%) and 58 Mathematics majors (29%).

Results

The data collected was analysed using the SPSS-PC programme. The reliability coefficients of the eight sub-scales were examined. The Cronbach alpha reliability quotients of the scales were as follows.

Table 3

Reliability coefficient of teacher behaviour dimensions

Teacher behaviour Dimension	*Reliability coefficient*
Leadership	.84
Helping/Friendly	.70
Understanding	.86
Student Responsibility/Freedom	.62
Uncertain	.76
Dissatisfied	.68
Admonishing	.73
Strict	.66

The range of reliability coefficients obtained .62 to .86 is similar to that reported in earlier studies carried out in the United States, the Netherlands and Australia, also in Singapore and Brunei with students as respondents.

Trainee Teachers' Behaviour Dispositions

The descriptive statistics of the disposition of the sample on the eight dimensions of teacher behaviour are reported in Table 4. According to the trainee teachers themselves, they are rather high on leadership, friendliness and understanding. Uncertain, dissatisfaction and admonishing behaviours are far less prominent. The student teachers as a group have expressed that they are rather strict with their students and keep reins tight in class. They are also not willing to give freedom and responsibility to their students for independent work. This may be due to the ethos in Singapore schools where covering the content in the syllabus and performance in public examinations are highly valued. Teachers feel student freedom and independent work would hamper their work.

Table 4

Teacher behaviour Dimensions: Means and standard deviations

Teacher behaviour Dimension	*Mean*	*Standard Deviation*

Leadership	17.18	3.18
Helping/Friendly	18.88	2.98
Understanding	19.05	2.66
Student Responsibility/Freedom	9.35	3.00
Uncertain	5.73	3.74
Dissatisfied	6.19	3.26
Admonishing	7.74	3.18
Strict	14.19	2.76

The self-evaluation of trainee teachers of their interpersonal relationship with their students is very similar to that of teachers in Western Australia (Wubbles, 1993). This may be an indication that the trainee teachers have truthfully answered the questionnaire and have not given "acceptable" or fake responses. However the Australian teachers have reported less strict and admonishing behaviour than the trainee teachers in Singapore. The profile of the mean QTI scores for Australian teachers and Singapore trainee teachers are shown in Figure 2.

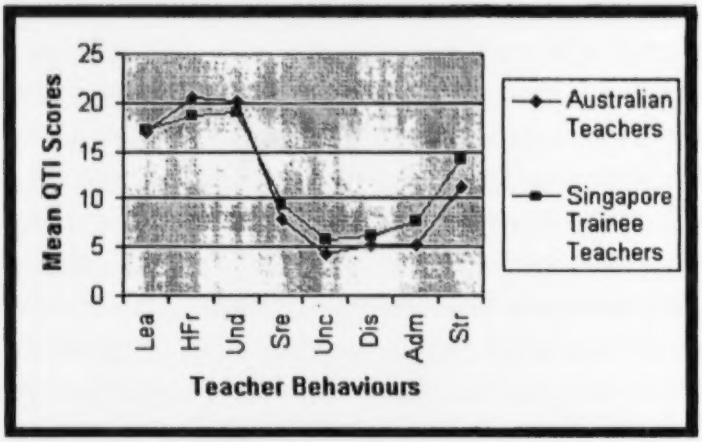

Figure 2: Profiles of mean QTI scores of Australian teachers and Singapore trainee teachers

Gender and behaviour dispositions

To find out whether there is any relationship between gender and interpersonal dispositions the mean scores of the male and female sample were compared using the independent sample t-test analysis. The results are shown in Table 4.

Four of the teacher behaviours show gender differences. Males perceive themselves to have more leadership and helpful-friendly behaviour than females. The differences in the group means are statistically significant at .001 and .05 level respectively. The females show more uncertain and admonishing behaviour than the males. The differences in the group means are statistically significant at .001 and .05 level

Table 5

Gender and teacher behaviour dispositions

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Teacher behaviour Dimension	*Gender*	*Mean*	*Standard Deviation*	*t-value*
Leadership	Male	18.14	2.92	4.08***
	Female	16.38	3.17	
Helping/Friendly	Male	19.10	3.17	2.25*
	Female	18.15	2.76	
Understanding	Male	19.44	2.80	1.89
	Female	18.73	2.50	
Student Responsibility/Freedom	Male	9.52	3.15	0.75
	Female	9.20	3.04	
Uncertain	Male	4.76	3.54	3.44***
	Female	6.53	3.74	
Dissatisfied	Male	6.24	3.04	0.24
	Female	6.14	3.44	
Admonishing	Male	7.16	2.93	2.39*
	Female	8.21	3.31	
Strict	Male	14.17	2.92	0.08
	Female	14.20	2.64	

***$p < .001$; *$p < .05$

respectively. It appears that females lack of leadership quality leads them to resort to admonishing behaviour to control the students. Also, females perceive themselves more uncertain and keep a low profile in class and this could have led them to perceive themselves as less helpful and friendly with their students. The profiles of mean QTI scores of male and female trainee teachers are shown in Figure 3.

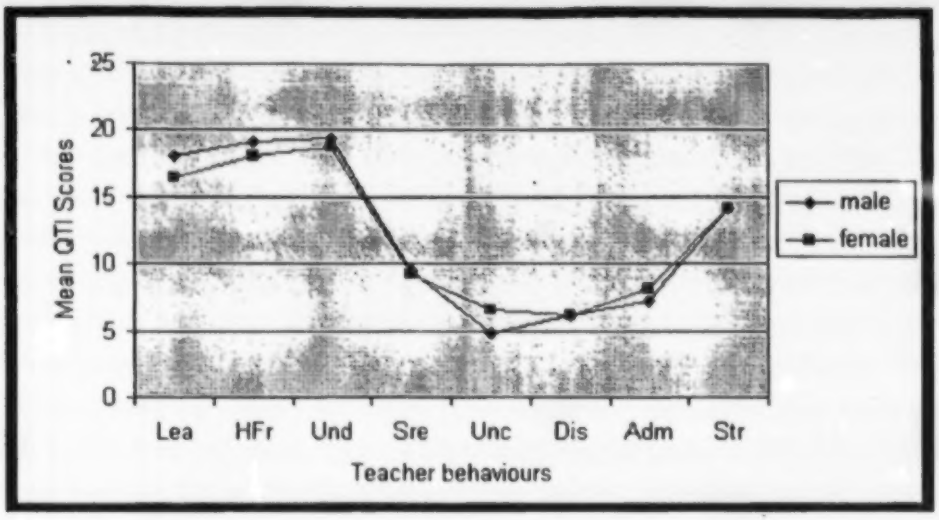

Figure 3: Profiles of mean QTI scores of male and female trainee teachers

Academic major and behaviour dispositions

There appears to be no relationship between the academic major of trainee teachers and their disposition to the various teacher behaviours examined in this study The nature of academic subjects does not seem to have differential influence on the development of interpersonal behaviour of trainee teachers with their students. So it may be viewed that interpersonal teacher behaviours are more a product of personality rather than training per se.

Summary and Conclusion

The study set out to map the profile of Singapore trainee teachers' perceived interpersonal behaviours with their students. The study has provided valuable information on how student teachers in Singapore perceived their interpersonal behaviour with their students. The trainee teachers as a group indicated that they are strict with their students and not very willing to provide freedom and responsibility to students. They have also indicated that they are high on leadership, friendliness and understanding, and low in uncertain, dissatisfaction and admonishing behaviours. The profile of the interpersonal behaviours of trainee teachers in Singapore seems to be well balanced except in the area of giving freedom to students to be responsible for their own learning. Trainee teachers would like to have a tight control of their students learning. The study also found that gender differences influenced in the self-evaluation of student-teacher interactions. While male trainee teachers perceived that they display more leadership qualities in the class and helping and friendly behaviours towards the students, female student teachers perceived that they are more uncertain and admonishing than their male counterparts. Perhaps their content knowledge and classroom management skills need to be further strengthened to give them confidence to manage the class. Also, it would be interesting to find out next what are the concerns of female trainee teachers that make them perceive as uncertain in the classroom situation so that remedial action may be taken to help them build more confidence.

Research has shown that maintaining discipline continues to be one of the most problematic areas faced by trainee teachers in the classroom (Tulley & Lian, 1995). It has also been found that maintaining discipline caused trainee teachers great anxieties (Barrett & Curtis 1983). This may be one of the reasons why trainee teachers prefer the teacher-centred approaches in teaching that allows them to control the class better than collaborating learning situations that may lead to disruptive student behaviour. If learner-centred learning environments are to be created the trainee teachers must be made to feel confident in the handling of interpersonal behaviour and interaction with their students.

Self-evaluation of teacher-student interaction thus can become a potentially powerful exercise when a teacher attempts

to create and maintain favourable classroom learning environment through positive interpersonal behaviours. Further studies could be made to determine the differences and similarities between self-evaluation of teachers' own behaviour and students' perceptions of their teachers interpersonal behaviours. Extrapolation of these two sets of data can provide useful information for the beginning teachers to manage their classes effectively.

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